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Real Party in Interest

The real party in interest is Thomson Licensing.

Related Appeals and Interferences

Appellant asserts that no other appeals or interferences are known to the Appellant, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-8 were originally presented with the filed application. The Appellant's claims 1 and 5-8 were amended in prosecution to more clearly define the invention of the Appellant and to distinguish the invention of the Appellant over cited art. In addition, claims 9 and 10 were added. The Appellant's claims 1-2, 5 and 7-10 stand finally rejected under 35 U.S.C. § 102(e) as being anticipated by Isaka (U.S. Patent No. 5,706,388). In addition, the Appellant's claims 3-4 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Official Notice. Even further, the Appellant's claim 6 stands finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Ogawa (U.S. Patent No. 6,115,799).

The claims on appeal are those presented in the Appellant's response filed on July 27, 2006, which are the same as in the Appellant's response filed on October 18, 2006, which are the same as in the Appellant's response filed on April 12, 2007. That is, the claims on appeal are the Appellant's claims 1-10, which are listed in the attached Claims Appendix.

Status of Amendments

A first response was filed on November 08, 2005 to overcome a First Office Action dated September 21, 2005. In the First Office Action, the Examiner rejected the Appellant's claims 1-4, 6 and 7 under 35 U.S.C. § 102(e) as being anticipated by Thomason (US Patent No. 6,018,612). The Examiner further rejected the Appellant's claims 5 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Thomason in view of Mishara (US Patent No. 6,304,927). In the response filed on November 08, 2005, the Appellant set forth arguments traversing the rejections issued by the Examiner and distinguishing the Appellant's invention over the cited prior art.

A second response was filed on June 09, 2006 to overcome a Final Office Action dated February 01, 2006. In the Final Office Action, the Examiner again rejected the Appellant's claims 1-4, 6 and 7 under 35 U.S.C. § 102(e) as being anticipated by Thomason and again rejected the Appellant's claims 5 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Thomason in view of Mishara. In the response filed on June 09, 2006, the Appellant set forth further arguments traversing the rejections issued by the Examiner and distinguishing the Appellant's invention over the cited prior art.

The Examiner responded to the Appellant's response of June 09, 2006 with an Advisory Action dated July 14, 2006. In the Advisory Action, the Examiner indicated that the response dated June 09, 2006 does NOT place the application in condition for allowance because all arguments fail to be persuasive. In addition, the Examiner indicated that the Appellant argued features of the invention that were not recited in the Appellant's claims.

In response to the Advisory Action dated July 14, 2006, the Appellant submitted an RCE and Preliminary Amendment on July 27, 2006. In the Preliminary Amendment, the Appellant amended claims 1 and 5-8 to more clearly define the invention of the Appellant such that the features argued in the Appellant's response of June 09, 2006 were now contained in the Appellant's claims.

The Appellant received a non-Final Office Action dated August 25, 2006 in response to the RCE and Preliminary dated on July 27, 2006. In the non-Final Office Action received August 25, 2006, the Examiner rejected the Appellant's claims 1-2, 5 and 7-10 under 35 U.S.C. § 102(e) as being anticipated by Isaka (U.S. Patent No. 5,706,388). The Examiner further rejected the Appellant's claims 3 and

4 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Official Notice. The Examiner further rejected the Appellant's claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Ogawa (U.S. Patent No. 6,115,799). The Appellant filed a response to the non-Final Office Action on October 18, 2006. In the response filed on October 18, 2006, the Appellant set forth arguments traversing the rejections issued by the Examiner and distinguishing the Appellant's invention over the cited prior art.

The Appellant received a Final Office Action dated January 03, 2007 in response to the response filed on October 18, 2006. In the Final Office Action, the Examiner again rejected the Appellant's claims 1-2, 5 and 7-10 under 35 U.S.C. § 102(e) as being anticipated by Isaka, again rejected the Appellant's claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Official Notice and again rejected the Appellant's claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Ogawa. The Appellant filed a response to the Final Office Action on April 12, 2007. In the response filed on April 12, 2007, the Appellant set forth further arguments traversing the rejections issued by the Examiner and distinguishing the Appellant's invention over the cited prior art.

The Examiner responded to the Appellant's response of April 12, 2007 with an Advisory Action dated May 16, 2007. In the Advisory Action, the Examiner indicated that the response dated January 02, 2007 does NOT place the application in condition for allowance because all arguments fail to be persuasive. In response to the Advisory Action dated May 16, 2007, the Appellant submitted a Notice of Appeal dated May 25, 2007.

Summary of Claimed Subject Matter

The invention of the Appellant provides a process and apparatus for recording a digital video and audio data stream which avoids unnecessary jumps of the recording and reading head, the recording being carried out on a medium organized in the form of logic blocks in series. The Appellant teaches that in one embodiment of the invention, during writing without reading, a single jump of the head is performed and that during reading while continuing recording, no jump is performed because the reading head reads a block and records in the immediately following block.

As suggested in MPEP 1206, the Appellant now reads at least two of the broadest appealed claims on the specification and on the drawings. It should be understood, however, that the appealed claims may read on other portions of the specification or other figures that are not listed below.

The Appellant's Specification specifically refers to figure 1 and figure 2 for teaching an apparatus for implementing the various advanced operating features in accordance with the inventive arrangements. The Appellant teaches that figure 1 is a block diagram of a digital receiver/decoder including a storage device in accordance with the present invention. The apparatus of figure 1 includes a tuner linked to a demodulation and error correction circuit which also includes an analog/digital converter for digitizing the signals originating from the tuner. The Appellant teaches that the receiver/decoder comprises a hard disk for the mass storage of audio and video data. The Appellant further teaches that the digital receiver/decoder includes an interfacing circuit for interfacing the recording medium with a control circuit/microprocessor. The control circuit manages the writing and the reading of blocks of the recording medium. More specifically, the Appellant teaches that the two transfer control circuits are state machines whose operation is controlled by the microprocessor.

With reference to FIGs. 9a and 9b, the Appellant teaches an embodiment of a process for recording a digital video and audio data stream in accordance with the Appellant's invention. More specifically, the Appellant teaches that according to one embodiment of the invention, the number of head jumps during simultaneous recording and reading is reduced by effecting interleaved writing of the blocks, as illustrated by figures 9a and 9b. The Appellant teaches that

when the recording of a program is triggered (for example by the television viewer), writing is performed every other block in a sequence of adjacent blocks. An example is illustrated in figure 9a. The Appellant teaches that a jump of the read head is therefore performed before writing each block. The Appellant further explains that when a reading of the program is triggered, writing is continued in the blocks left free previously. For example, following the reading of the first block written (the one furthest to the left in figure 9b), the next write is performed in the immediately adjacent block. The Appellant teaches that no jump of the read/write head is then performed between reading in the first block and writing in the second block. The reduction in the number of jumps of the head also results in a consequent reduction in the noise generated by these movements.

For the convenience of the Board of Patent Appeals and Interferences, Appellant's pending claims are presented below in claim format with elements read on the drawings and appropriate citations to at least one portion of the specification for each element of the appealed claims (with reference numerals added).

Claim 1 positively recites (with reference numerals added, where applicable):

1. A process for recording a digital video and audio data stream wherein recording being carried out on a medium (201) organized in the form of logic blocks in series and comprising a recording and reading head, said process comprising the steps of:
 recording data on said medium (201) as a pattern of at least one recorded block immediately followed by at least one unrecorded block; and
 following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read. (See Appellant's specification, page 18, lines 6-21).

Claim 2 positively recites:

2. The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, recording is continued in contiguous blocks in a non-interlaced manner. (See Appellant's specification, page 18, lines 22-23).

Claim 3 positively recites:

3. The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, recording is continued in a loop in the blocks previously read. (See Appellant's specification, page 18, lines 23-27).

Claim 4 positively recites:

4. The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, said blocks are read, then rewritten in a non-interlaced manner. (See Appellant's specification, page 18, lines 28-32).

Claim 5 positively recites:

5. The process as claimed in claim 1, wherein the recording of data is performed in a group of N contiguous blocks ($N > 1$). (See Appellant's specification, page 2, lines 9-11).

Claim 6 positively recites:

6. The process as claimed in claim 1, further comprising the step of, detecting sequences of free blocks on the medium for applying said steps of recording and reading. (See Appellant's specification, page 2, lines 12-15 and page 16, line 24 through page 17, line 1).

Claim 7 positively recites:

7. A digital television receiver comprising means for receiving a digital audio and video data stream, comprising:
a recording medium (201) furnished with a recording and reading head, said medium being organized in the form of logic blocks in series;
a control circuit (107) for managing the writing and the reading of blocks of the recording medium;
an interfacing circuit (119) for interfacing the recording medium (201) with said control circuit (107), said control circuit (107) adapted to control the recording of data on said medium (201) as a pattern of at least one recorded block immediately followed by at least one unrecorded block and following the triggering of the reading of the recorded data, the alternate reading of a continuous series of said previously recorded blocks and the continuing of the recording of data in said unrecorded blocks immediately following the blocks read. (See Appellant's specification, page 3, line 27 through page 7, line 19).

Claim 8 positively recites:

8. The receiver as claimed in claim 7, wherein the control circuit instructs the recording of data in a group of N contiguous blocks ($N > 1$). (See Appellant's specification, page 2, lines 9-11).

Claim 9 positively recites:

9. The process as claimed in claim 1, wherein said pattern comprises a recorded block immediately followed by an unrecorded block. (See Appellant's specification, page 18, lines 10-13).

Claim 10 positively recites:

10. The receiver as claimed in claim 7, wherein said pattern comprises a recorded block immediately followed by an unrecorded block. (See Appellant's specification, page 18, lines 10-13).

Grounds of Rejections to be Reviewed on Appeal

1. Whether the Appellant's claims 1-2, 5 and 7-10 are patentable under 35 U.S.C. § 102(e) over Isaka (US Patent No. 5,706,388).
2. Whether the Appellant's claims 3 and 4 are patentable under 35 U.S.C. § 103(a) over Isaka in view of Official Notice.
3. Whether the Appellant's claim 6 is patentable under 35 U.S.C. § 103(a) over Isaka in view of Ogawa (U.S. Patent No. 6,115,799).
4. Pending claims 1-2, 5 and 7-10 and 3-4 have been grouped together, respectively, by the Examiner in their rejection. Appellant urges that each of the rejected claims stands on its own recitation, the claims being considered to be separately patentable for the reasons set forth in more detail *infra*.

ARGUMENT

I. THE EXAMINER ERRED IN REJECTING CLAIMS 1-2, 5 AND 7-10 UNDER 35 U.S.C. § 102 BECAUSE THE CITED REFERENCE FAILS TO ANTICIPATE AT LEAST A METHOD AND APPARATUS FOR THE SIMULTANEOUS RECORDING AND READING OF A DIGITAL AUDIO AND VIDEO DATA STREAM WHERE THE RECORDING IS CARRIED OUT ON A MEDIUM ORGANIZED IN THE FORM OF LOGIC BLOCKS IN SERIES INCLUDING “RECORDING DATA ON SAID MEDIUM AS A PATTERN OF AT LEAST ONE RECORDED BLOCK IMMEDIATELY FOLLOWED BY AT LEAST ONE UNRECORDED BLOCK” AND “FOLLOWING THE TRIGGERING OF THE READING OF THE RECORDED DATA, THE ALTERNATE READING OF A CONTINUOUS SERIES OF SAID PREVIOUSLY RECORDED BLOCKS AND THE CONTINUING OF THE RECORDING OF DATA IN SAID UNRECORDED BLOCKS IMMEDIATELY FOLLOWING THE BLOCKS READ”.

A. 35 U.S.C. § 102(e) - Claim 1

The Examiner rejected claims 1-2, 5 and 7-10 under 35 U.S.C. § 102(e) as being anticipated by Isaka (U.S. Patent No. 5,706,388). The rejection is respectfully traversed.

Regarding claim 1, the Examiner alleges that Isaka discloses a process for recording a digital video and audio data stream wherein recording being carried out on a medium organized in the form of logic blocks in series and comprising a recording and reading head including all of the aspects of the Appellant's invention. The Appellant respectfully disagrees.

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim” (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1983)). (emphasis added). The Appellant respectfully submits that Isaka fails to teach each and every element of at least the Appellant's claim 1, which specifically recites:

"A process for recording a digital video and audio data stream wherein recording being carried out on a medium organized in the form of logic blocks in series and comprising a recording and reading head, said process comprises the steps of:

recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block;
and

following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read." (emphasis added).

The Appellant's claim 1 finds support throughout the specification. More specifically, Claim 1 is directed to a process for recording a digital video and audio data stream wherein recording being carried out on a medium (hard disk 201 on page 5, line 23) organized in the form of logic blocks in series and comprising a recording and reading head, the process including the steps of recording data in a pattern of at least one recorded block immediately followed by at least one unrecorded block (see figure 9a, page 18 lines 10-13) and following the triggering of the reading of the data, alternately reading a continuous series of previously recorded blocks and continuing the recording of data in the unrecorded blocks immediately following the blocks read (see page 18 lines 14-21).

In contrast to the invention of the Appellant, at least as claimed by the Appellant's independent claim 1, Isaka teaches (see column 4 lines 53-57) that "the data is recorded in consecutive areas on the recording medium 6a in the receiving order". Such teachings in Isaka are in direct contrast to at least the Appellant's claim 1 in which the data is recorded as a pattern of at least one recorded block immediately followed by at least one unrecorded block. Therefore the data is not recorded in the receiving order, as the blocks unrecorded are recorded later and are thus interlaced with data previously recorded.

In contrast to the invention of the Appellant, in Isaka, the data is not interlaced, this is also clearly mentioned on column 6 lines 6-24 of Isaka. That is, in Isaka the data is recorded in successive blocks. Nothing in Isaka indicates that the data is recorded in one block, then one block is left free, then another block is recorded and so on, as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1. Instead, Isaka teaches in column 6 lines 13-15 that in block 1 is recorded the first predetermined amount of data and in block n is recorded

the n th predetermined amount of data. This clearly teaches that in Isaka the data is stored without letting at least one free block unrecorded between two recorded blocks as taught and claimed by the Appellant.

More specifically, in one embodiment of the invention of the Appellant, a first predetermined amount of data is recorded in block 1, a second predetermined amount of data is recorded in block 3, and in block $(2n-1)$ is recorded the n th predetermined amount of data. As such, in the invention of the Appellant one block of data is left free after recording one block of incoming data. In the case where one recorded block is followed immediately by more than one unrecorded block, the n th amount of data is stored not in block $(2n-1)$ but in a block of greater number than $2n-1$.

In figure 3 of Isaka as pointed out by the Examiner, it is clearly taught that data is recorded in contiguous blocks, see blocks n , $n+1$, $n+2$. There is not one recorded block immediately followed by one unrecorded block as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1. This is in direct contrast to the invention of the Appellant (i.e., see figures 9a and 9b of Appellant's invention where it is clearly shown that one recorded block is followed by at least one unrecorded block, the blocks being written one block over two or over three but not one block after the other without letting at least one free block between each recorded block).

Regarding the reproducing mode, Isaka teaches that the data is read on the recording medium and transferred either in buffer 10 or 11. Isaka further teaches in column 5 lines 24-35 that "at the same time the recording/reproducing head is returned to the last recording position to continue the recording operation for the data supplied from either of the reception buffer memories 1 and 2. When the predetermined amount of data is recorded on the recording medium 6a, the recording/reproducing head is again moved to the last reproducing position to reproduce the predetermined amount of data similarly to the above mentioned manner". Therefore, it is clear that in Isaka the recording/reproducing head moves from a reproducing position to a recording position, whereas in our invention, the recording/reproducing head does not need to move from the recording position to the reproducing position as data is read and recorded in contiguous (successive) blocks which therefore does not require moving the head from one position to a non-

continuous position. As such, the invention of the Appellant has a clear and distinct advantage over the invention taught and claimed in Isaka.

Even further, the Appellant respectfully submits that the abstract of Isaka as cited by the Examiner also absolutely fails to teach each and every aspect of the Appellant's claim 1. More specifically, the Appellant does not agree that the abstract discloses a recording system where recording of information currently received can be performed while displaying of data previously recorded as taught and claimed by the Appellant. That is the Appellant submits that the abstract of Isaka does not teach, suggest or anticipate at least how the blocks are recorded and read on the recording medium as taught in the Appellant's Specification and as claimed in at least the Appellant's claim 1.

In addition, the Appellant submits that in contrast to the invention of the Appellant, at least as claimed by the Appellant's independent claim 1, Isaka describes a process for recording a digital video and audio data stream wherein recording is carried out on a medium (hard disk 36), organized in the form of logic blocks in series and comprising a recording and reading head (column 4 line 36) , the process comprising the steps of storing first in a buffer memory (35) the data before transferring them to the main memory (36) and also, when reading data on the main memory (36), data is initially sent to the buffer memory (35). The invention proposes a useful arrangement of the buffer memory in order to make the data transfers with the main memory using an efficient manner. However, the arrangement is dedicated to the management of the buffer memories and not to the arrangement of the main memory.

More specifically, In Isaka, and specifically referring to Figure 2, Isaka describes a main memory, which can be in the form of a band disk arrangement (see column 3 line 57) and can be a hard-disk (see column 3 line 9). This main memory is interfaced to the management of this memory with a buffer memory comprising an input buffer 35a, an output buffer 35b and a free space between these two buffers. A micro-processor initiates the data transfer from the buffer 4 to the buffer memory 35. Input data in the buffer memory 35 is transferred to the main memory 36 as soon as it is convenient under the supervision of the microprocessor 34....(see column 3 lines 60-67)...the stored data in main memory 36 is in due course transferred to the buffer memory 35 under supervision of the microprocessor 34...(see column 4 lines 1-3). Isaka teaches the management of the data in the

buffer memory and not the management of the data in the main memory. That is, in Isaka, the buffer is divided in two parts and the blocks are read in one part and written in the other part. However, it is not the main memory which is written one block out of two as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1. The Examiner specifically alleges that P1 and P2 are blocks but the Appellant respectfully submits that in Isaka, P1 and P2 are blocks of the buffer memory and not blocks of the main memory. In Isaka, the main memory is written in a conventional way, or at least it is not the object of Isaka as nothing is said in Isaka about the main memory.

The buffer memory of Isaka represents one embodiment to avoid having a delay induced by the movement of the head, the data being firstly stored in the buffer memory, so the buffer memory acts as a cache memory. However, it is not the same solution which is taught in the Appellant's Specification and claimed by at least the Appellant's claim 1. In order to avoid having such an additional buffer (35), claim 1 of the Appellant's invention proposes the characteristics of "recording the data in one block out of two starting from a first block, following the triggering of the reading of the data, alternately of reading a previously recorded block and of continuing the recording in the block following the block read". That is, the invention of the Appellant is directed at least in part to solving the deficiencies of the invention of Isaka which needs and teaches an additional buffer (35). As such, the Appellant respectfully submits that the invention of the Appellant, at least with respect to claim 1, is a totally different solution than the one proposed in Isaka as Isaka does not teach, suggest or anticipate recording data in one block out of two, wherein the recording is carried out on a medium organized in the form of logic blocks. That is, Isaka absolutely fails to teach, suggest or anticipate "recording data in one block out of two starting from a first block" where the blocks are blocks of a recording medium as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1.

Instead, in Isaka there is a buffer separated in two areas that the Examiner considers as equivalent to the blocks of the recording medium of the Appellant's claim 1. However, in Isaka, there is only one block for recording and one block for reading and they are not blocks of the main memory 36 (medium organized in the form of logic blocks) as taught and claimed by the Appellant, but instead are portions of the buffer 35. As such, the Appellant respectfully submits that Isaka

absolutely fails to teach, suggest or anticipate the invention of the Appellant, at least with respect to claim 1, where it is clear that the main memory (medium organized in the form of logic blocks) comprises several blocks and that during a write operation, data is written leaving a free space in the data block chain for subsequent recording, the free space being a block as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1.

As such, the Appellant submits that this is clearly a structural difference between the claimed invention and the cited prior art of Isaka. That is, in Isaka, there is clearly a need for an external memory buffer, and in contrast, in the invention of the Appellant, there is no need for such a buffer due to the characteristics of claim 1. More specifically, in Isaka, it is the main memory which comprises a single reading and writing head and the blocks are not blocks of the main memory but blocks of the buffer located between the main memory 36 and the microprocessor. In contrast, in the invention of the Appellant, there is a main memory comprising a single reading and writing head and this main memory is separated into logic blocks. The Appellant's teachings describe the management of this main memory during recording of data using a new inventive method of block management avoiding the loss of time during the switch between read and write operations and without the need of an external buffer as disclosed in Isaka.

Therefore, the Appellant submits that for at least the reasons recited above, independent claim 1 is not anticipated by the teachings of Isaka and, as such, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

B. 35 U.S.C. § 102(e) - Claim 2

Claim 2 depends directly from independent claim 1 and recites further technical features thereof. At least because the teachings of Isaka absolutely fail to teach, suggest or anticipate the invention of the Appellant with regard to at least the Appellant's independent claim 1, the Appellant respectfully submits that dependent claim 2 is also not anticipated and is allowable for at least the reasons stated above with respect to independent claim 1. The Appellant further submits that Isaka also fails to teach, suggest or anticipate the Appellant's claim 1 further limited by "wherein when the set of blocks recorded before the triggering of reading have been read, recording is continued in contiguous blocks in a non-interlaced manner" as recited in claim 2.

That is, and for at least the same reasons provided in Section A above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed in at least the Appellant's claim 1, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in dependent claim 2, which depends directly from independent claim 1.

Therefore, the Appellant submits that claim 2, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

C. 35 U.S.C. § 102(e) - Claim 5

Claim 5 depends directly from independent claim 1 and recites further technical features thereof. At least because the teachings of Isaka absolutely fail to teach, suggest or anticipate the invention of the Appellant with regard to at least the Appellant's independent claim 1, the Appellant respectfully submits that dependent claim 5 is also not anticipated and is allowable for at least the reasons stated above with respect to independent claim 1. The Appellant further submits that Isaka also fails to teach, suggest or anticipate the Appellant's claim 1 further limited by "wherein the recording of data is performed in a group of N contiguous blocks ($N > 1$)" as recited in claim 5.

That is, and for at least the same reasons provided in Section A above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught

in the Appellant's Specification and claimed in at least the Appellant's claim 1, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in dependent claim 5, which depends directly from independent claim 1.

Therefore, the Appellant submits that claim 5, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

D. 35 U.S.C. § 102(e) - Claim 7

Claim 7 is an independent claim that recites similar relevant features as recited in the Appellant's independent claim 1. More specifically, claim 7 claims an apparatus for the simultaneous recording and reading of a digital audio and video data stream including "an interfacing circuit for interfacing the recording medium with said control circuit, said control circuit adapted to control the recording of data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block and following the triggering of the reading of the recorded data, the alternate reading of a continuous series of said previously recorded blocks and the continuing of the recording of data in said unrecorded blocks immediately following the blocks read".

As described in Section A above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed in at least the Appellant's claim 1 and as similarly claimed in the Appellant's independent claim 7, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in independent claim 7, which recites similar relevant features as recited in independent claim 1.

Therefore, the Appellant submits that claim 7, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

E. 35 U.S.C. § 102(e) - Claim 8

Claim 8 depends directly from independent claim 7 and recites further technical features thereof. At least because the teachings of Isaka absolutely fail to teach, suggest or anticipate the invention of the Appellant with regard to at least the Appellant's independent claim 7, the Appellant respectfully submits that dependent claim 8 is also not anticipated and is allowable for at least the reasons stated above with respect to independent claim 7 and independent claim 1. The Appellant further submits that Isaka also fails to teach, suggest or anticipate the Appellant's claim 7 further limited by "wherein the control circuit instructs the recording of data in a group of N contiguous blocks ($N > 1$)" as recited in claim 8.

That is, and for at least the same reasons provided in Sections A and D above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed in at least the Appellant's claims 1 and 7, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in dependent claim 8, which depends directly from independent claim 7.

Therefore, the Appellant submits that claim 8, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

F. 35 U.S.C. § 102(e) - Claim 9

Claim 9 depends directly from independent claim 1 and recites further technical features thereof. At least because the teachings of Isaka absolutely fail to teach, suggest or anticipate the invention of the Appellant with regard to at least the Appellant's independent claim 1, the Appellant respectfully submits that dependent claim 9 is also not anticipated and is allowable for at least the reasons stated above with respect to independent claim 1. The Appellant further submits that Isaka also

fails to teach, suggest or anticipate the Appellant's claim 1 further limited by "wherein said pattern comprises a recorded block immediately followed by an unrecorded block" as recited in claim 9.

That is, and for at least the same reasons provided in Section A above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed in at least the Appellant's claim 1, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in dependent claim 9, which depends directly from independent claim 1.

Therefore, the Appellant submits that claim 9, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

G. 35 U.S.C. § 102(e) - Claim 10

Claim 10 depends directly from independent claim 7 and recites further technical features thereof. At least because the teachings of Isaka absolutely fail to teach, suggest or anticipate the invention of the Appellant with regard to at least the Appellant's independent claim 7, the Appellant respectfully submits that dependent claim 10 is also not anticipated and is allowable for at least the reasons stated above with respect to independent claim 7 and independent claim 1. The Appellant further submits that Isaka also fails to teach, suggest or anticipate the Appellant's claim 7 further limited by "wherein said pattern comprises a recorded block immediately followed by an unrecorded block" as recited in claim 10.

That is, and for at least the same reasons provided in Sections A and D above, at least because Isaka fails to teach, suggest or anticipate at least a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block"

and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed in at least the Appellant's claims 1 and 7, the Appellant respectfully submits that Isaka also fails to teach, suggest or anticipate the Appellant's invention as claimed in dependent claim 10, which depends directly from independent claim 7.

Therefore, the Appellant submits that claim 8, as it now stands, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

II. THE EXAMINER ERRED IN REJECTING CLAIMS 3-4 UNDER 35 U.S.C. § 103 AT LEAST BECAUSE THE CITED REFERENCES FAIL TO MAKE OBVIOUS AT LEAST A METHOD AND APPARATUS FOR THE SIMULTANEOUS RECORDING AND READING OF A DIGITAL AUDIO AND VIDEO DATA STREAM WHERE THE RECORDING IS CARRIED OUT ON A MEDIUM ORGANIZED IN THE FORM OF LOGIC BLOCKS IN SERIES INCLUDING “RECORDING DATA ON SAID MEDIUM AS A PATTERN OF AT LEAST ONE RECORDED BLOCK IMMEDIATELY FOLLOWED BY AT LEAST ONE UNRECORDED BLOCK”.

A. 35 U.S.C. § 103(a) - Claims 3-4

The Examiner rejected claims 3-4 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Official Notice. The rejection is respectfully traversed.

The Examiner applied Isaka for the rejection of claims 3-4 as applied above for the rejection of claim 1. As described above, Isaka absolutely fails to teach, suggest or anticipate at least the Appellant's independent claim 1. As such, and at least because Isaka fails to teach, suggest or anticipate the Appellant's independent claim 1, the Appellant further submits that Isaka also fails to teach, suggest or render obvious the Appellant's claims 3-4, which depend directly from the Appellant's claim 1.

The Appellant further submits that the Examiner's Official Notice fails to bridge the substantial gap between the teachings of Isaka and the invention of the Appellant. That is, in the Final Office Action, the Examiner took Notice that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Isaka by rewriting data on a block previously read and reproduced in order to use same blocks (the Appellant disagrees). However, even if the Examiner's Notice was conceded, the teachings of Isaka and the Official Notice combined, absolutely fail to teach suggest or make obvious a method and apparatus for the simultaneous recording and reading of a digital audio and video data stream including at least “recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block” as taught in the Appellant's Specification and claimed in at least the Appellant's claim 1,

As such and for at least the reasons recited above, the Appellant respectfully submits that the teachings of Isaka and Official Notice fail to teach, suggest or make

obvious the invention of the Appellant with regard to at least the Appellant's independent claim 1. As such, the Appellant further submits that the teachings of Isaka and the Official Notice also fail to teach, suggest or make obvious the invention of the Appellant with regard to dependent claims 3 and 4, which depend directly from the Appellant's independent claim 1 and recite further limitations thereof.

Therefore, the Appellant submits that for at least the reasons recited above, the Appellant's claims 3 and 4 are not rendered obvious by the teachings of Isaka and the Official Notice and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

III. THE EXAMINER ERRED IN REJECTING CLAIM 6 UNDER 35 U.S.C. § 103 AT LEAST BECAUSE THE CITED REFERENCES FAIL TO MAKE OBVIOUS AT LEAST A METHOD AND APPARATUS FOR THE SIMULTANEOUS RECORDING AND READING OF A DIGITAL AUDIO AND VIDEO DATA STREAM WHERE THE RECORDING IS CARRIED OUT ON A MEDIUM ORGANIZED IN THE FORM OF LOGIC BLOCKS IN SERIES INCLUDING “RECORDING DATA ON SAID MEDIUM AS A PATTERN OF AT LEAST ONE RECORDED BLOCK IMMEDIATELY FOLLOWED BY AT LEAST ONE UNRECORDED BLOCK” AND “FOLLOWING THE TRIGGERING OF THE READING OF THE RECORDED DATA, THE ALTERNATE READING OF A CONTINUOUS SERIES OF SAID PREVIOUSLY RECORDED BLOCKS AND THE CONTINUING OF THE RECORDING OF DATA IN SAID UNRECORDED BLOCKS IMMEDIATELY FOLLOWING THE BLOCKS READ”.

A. 35 U.S.C. § 103(a) – Claim 6

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Isaka in view of Ogawa (U.S. Patent No. 6,115,799). The rejection is respectfully traversed.

The Examiner applied Isaka for the rejection of claim 6 as applied above for the rejection of claim 1. As described above, Isaka absolutely fails to teach, suggest or anticipate at least the Appellant's independent claim 1. As such, and at least because Isaka fails to teach, suggest or anticipate the Appellant's independent claim 1, the Appellant further submits that Isaka also fails to teach, suggest or anticipate the Appellant's claim 6, which depend directly from the Appellant's claim 1.

Furthermore, the Appellant submits that the teachings of Ogawa absolutely fail to bridge the substantial gap between the teachings of Isaka and the invention of the Appellant at least with respect to the Appellant's claim 1. That is, the Appellant submits that Ogawa also fails to teach, suggest or render obvious at least "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded

blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed by at least the Appellant's independent claim 1.

More specifically Ogawa teaches an information processing apparatus, which can expand a part of a function by the addition of software. The invention of Ogawa enables the development of additional software that does not depend on the firmware version. The information processing apparatus of Ogawa manages a memory using, for example, a Next Fit method and may reduce memory fragmentation. A reduction in memory fragmentation may be performed before and after a photograph is taken in a camera using a flash memory, or before or after recording or erasing is performed. However, the Appellant submits that there is absolutely no teaching, suggestion or disclosure in Ogawa for a process for recording a digital video and audio data stream in which recording is being carried out on a medium organized in the form of logic blocks in series and including a recording and reading head where the process includes "recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block" and "following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read" as taught in the Appellant's Specification and claimed by at least the Appellant's claim 1.

As such, the Appellant submits that at least because Ogawa fails to teach, suggest or render obvious at least the Appellant's independent claim 1, the Appellant further respectfully submits that Ogawa also fails to teach, suggest or render obvious the Appellant's claim 6, which depends directly from the Appellant's independent claim 1.

Furthermore, the Appellant submits that there is absolutely no motivation or suggestion in either reference for the combination of Isaka and Ogawa to attempt to teach the invention of the Appellant. More specifically, there is no motivation or suggestion in the invention of Ogawa for the combination of the references and likewise, the invention of Isaka does not expressly or impliedly motivate or suggest such a combination as required by for the combination of references under 35 U.S.C. § 103.

Even further, the Appellant submits that even if there was a motivation to combine the references (which the Appellant maintains that no such motivation

exists), the teachings of Ogawa fail to bridge the substantial gap between the teachings of Isaka and the Appellant's invention at least with respect to independent claim 1 and as such dependent claim 6 for at least the reasons recited above. As such and for at least the reasons recited above, the Appellant respectfully submits that the teachings of Isaka and Ogawa, alone or in any allowable combination, fail to teach, suggest or make obvious the invention of the Appellant with regard to at least the Appellant's independent claim 1. As such, the Appellant further submits that the teachings of Isaka and Ogawa, alone or in any allowable combination, also fail to teach, suggest or make obvious the invention of the Appellant with regard to dependent claim 6, which depends directly from the Appellant's independent claim 1, and recites further limitations thereof.

Therefore, the Appellant submits that for at least the reasons recited above, claim 6 is not rendered obvious by the teachings of Isaka and Ogawa, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.


Conclusion

Thus, the Appellant submits that none of the claims presently in the application are anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. Consequently, the Appellant believes all these claims are presently in condition for allowance.

For at least the reasons advanced above, the Appellant respectfully urges that the rejection of claims 1-2, 5 and 7-10 as being anticipated under 35 U.S.C. §102 and the rejection of claims 3-4 and 6 as being obvious under 35 U.S.C. §103 are improper. Reversal of the rejections in this Appeal is respectfully requested.

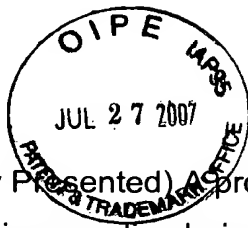
Respectfully submitted,

24 July 07
Date



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CLAIMS APPENDIX

1. (Previously Presented) A process for recording a digital video and audio data stream wherein recording being carried out on a medium organized in the form of logic blocks in series and comprising a recording and reading head, said process comprising the steps of:

recording data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block; and

following the triggering of the reading of the recorded data, alternately reading a continuous series of said previously recorded blocks and continuing the recording of data in said unrecorded blocks immediately following the blocks read.

2. (Previously Presented) The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, recording is continued in contiguous blocks in a non-interlaced manner.

3. (Previously Presented) The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, recording is continued in a loop in the blocks previously read.

4. (Previously Presented) The process as claimed in claim 1, wherein when the set of blocks recorded before the triggering of reading have been read, said blocks are read, then rewritten in a non-interlaced manner.

5. (Previously Presented) The process as claimed in claim 1, wherein the recording of data is performed in a group of N contiguous blocks ($N > 1$).

6. (Previously Presented) The process as claimed in claim 1, further comprising the step of,

detecting sequences of free blocks on the medium for applying said steps of recording and reading.

7. (Previously Presented) A digital television receiver comprising means for receiving a digital audio and video data stream, comprising:

a recording medium furnished with a recording and reading head, said medium being organized in the form of logic blocks in series;

a control circuit for managing the writing and the reading of blocks of the recording medium;

an interfacing circuit for interfacing the recording medium with said control circuit, said control circuit adapted to control the recording of data on said medium as a pattern of at least one recorded block immediately followed by at least one unrecorded block and following the triggering of the reading of the recorded data, the alternate reading of a continuous series of said previously recorded blocks and the continuing of the recording of data in said unrecorded blocks immediately following the blocks read.

8. (Previously Presented) The receiver as claimed in claim 7, wherein the control circuit instructs the recording of data in a group of N contiguous blocks ($N > 1$).

9. (Previously Presented) The process as claimed in claim 1, wherein said pattern comprises a recorded block immediately followed by an unrecorded block.

10. (Previously Presented) The receiver as claimed in claim 7, wherein said pattern comprises a recorded block immediately followed by an unrecorded block.

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EVIDENCE APPENDIX

Appellant asserts that there is no evidence to be submitted in accordance with this section.

RELATED PROCEEDINGS APPENDIX

Appellant asserts that there are no copies of decisions to be submitted in accordance with this section.